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*INSTALLATION RESTORATION PROGRAM  
ACTION PLAN  
GUIDANCE*

*January 1998*

*Prepared by:*

*U.S. Army Environmental Center*

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# **INSTALLATION RESTORATION PROGRAM**

## **ACTION PLAN GUIDANCE**

### **1.0 PURPOSE**

This document provides guidance for preparation of Installation Action Plans (IAPs) that outline the total multi-year environmental restoration program for an installation. Action plans present an integrated, coordinated approach to achieving the installation's environmental restoration goals. The plans define all Installation Restoration Program (IRP) requirements, propose a comprehensive approach to conduct investigations and remedial actions, and identify possible removals and interim remedial actions at an installation.

The intended audience for this guidance is the installation Remedial Project Manager, their IRP executing Project Managers, and major Army commands (MACOMs).

### **2.0 RECOMMENDED USE OF THE ACTION PLAN**

The IAP is more than a simple listing of individual sites and their associated schedules and funding requirements. Installations and project executors should use the IAP as a comprehensive planning tool to tell a clear story of where the installation is planning to go, how it intends to get there, and why the journey is necessary in the first place.

The Army encourages installations to use the IAP to present regulators and the interested public with the comprehensive plan for restoration of the environment at the installation. The plan should present solid evidence that the Army is firmly committed to expeditious identification and cleanup of environmental contamination, and that the installation has a credible, organized program to carry out that commitment.

IAPs are used by the U.S. Army Environmental Center (USAEC) and MACOMs to monitor requirements and schedules and make decisions concerning tentative budgets for all Army restoration programs.

The fundamental goal of the Defense Environmental Restoration Program (DERP) is to restore sites at Department of Defense (DoD) installations, therefore, IAPs should identify targets of opportunity for removal and interim remedial actions. Failure to aggressively pursue early cleanup opportunities reflects poorly on overall program management, and on the Army's commitment to early and effective restoration.

### **3.0 INSTALLATIONS REQUIRED TO PREPARE AN IAP**

IAPs must be developed for all installations that require IRP funds for eligible environmental restoration activities. An IAP must be prepared for active Army installations with:

- Requirements in the current IRP Obligation Plan,
- Requirements in the Army Cost-To-Complete (CTC) Study and Analysis, or
- Defense Sites Environmental Restoration Tracking System (DSERTS) IRP sites with a site status of "Underway" or "Future."

### **4.0 PREPARATION OF THE IAP**

The installation is responsible for preparing and updating the IAP. Even if an installation requests that their IRP executor prepare or update the IAP, preparation of the IAP must be a coordinated effort between the installation and the executor.

In the case of Army National Guard facilities, the National Guard Bureau acts as the installation and is responsible for preparing the IAP.

The IAP is meant to be a "living document". Even though an installation is required to officially submit an approved IAP annually, the installation should update the plan whenever a change to the program occurs or as needed for presentation to regulators and interested public.

*Installations are encouraged to include regulatory agency and Restoration Advisory Board (RAB) or Technical Review Committee (TRC) participation when preparing/updating the IAP.*

### **5.0 BASIC IAP REQUIREMENTS**

IAPs include a short chronological installation history of contamination studies, major issues that affect the overall IRP, descriptions of all DSERTS IRP sites, response actions taken, past milestones, and realistic goals and schedules based on known and expected IRP projects. The IAPs also include identification of any possible or future removal (REM)/interim remedial (IRA)/remedial action (RA). Prior year funding and cost estimates through the entire remedial process are also detailed.

### **5.1 *Defense Sites Environmental Restoration Tracking System (DSERTS)***

Sites addressed in the IAP include all IRP sites in the DSERTS data base for an installation, including response complete sites. IAPs are submitted at the same time as the spring DSERTS data call, therefore the site status reported in the IAP must be consistent with an installation's DSERTS data.

Most installations use the DSERTS numbers within the restoration program to identify sites, however some installations use solid waste management unit (SWMU) numbers from their RCRA Facility Assessments. Installations that commonly use SWMU designations in reports, documents and document titles, etc., are required to provide a cross-reference or conversion chart in the IAP. This can be easily accomplished by adding the SWMU designation as the "alias" in DSERTS. Keep in mind that even though the SWMU designation is used by an installation, the IAP must address all sites by DSERTS designations.

### **5.2 *Funding Information***

IAPs include prior, current, and out-year funding data presented as the total IRP budget from inception of the program at the preliminary assessment phase to projected completion of all remedial actions, as well as all remedial action operations (RA(O)) and long-term monitoring (LTM).

Current year funding and out-year funding requirements must be presented at the site-level. However, since the Army only began using site-level data in fiscal year 1996 (FY96), prior year funding information can be presented in the IAP at the project level.

Each IRP DSERTS site with ongoing or future planned restoration activity must include estimates of cost in the IAP. Current year funding in the IAP must reflect available funding as presented in the installation's current year IRP obligation plan. It is important that the financial projections contained in the IAP be consistent with the Cost-to-Complete (CTC) Study and Analysis results, as updated. *Out-year funding requirements in the IAP must match the installation's constrained CTC estimates.*

### **5.3 *Restoration Advisory Board (RAB) Information***

In accordance with Army policy, each active Army installation participating in the IRP must determine community interest in establishing and participating in a Restoration Advisory Board (RAB). However, the Army encourages formation of RABs only where community interest is sufficient and sustained. If community members are interested in establishing and participating in a RAB, then the Army installation should establish a RAB.

When an installation queries the local community and determines there is no community interest in a RAB, the installation must document in their IAP:

- Efforts taken to determine interest,
- Results of the efforts,
- Conclusion that there is no community interest, and
- Follow-up procedures to monitor the level of community interest in RABs.

Installations currently determining interest, currently establishing a RAB, or installations that have a RAB do not need to attach this documentation to their IAP.

#### **5.4 *Approval and Concurrence***

Once the IAP has been prepared/updated with appropriate input from the installation, IRP executing agency, MACOM, regulatory agencies, and the public, the Installation Commander, Garrison Commander, or a formally designated subordinate authority signs the IAP indicating approval. If the IAP is signed by someone other than the Installation Commander or Garrison Commander, a letter delegating signature authority from the Installation Commander or Garrison Commander is to be included when the IAP is submitted.

The installation forwards the IAP to their MACOM where the chief of the environmental office at the MACOM also signs the IAP, indicating concurrence.

#### **6.0 IAP CONTENT**

There are seven sections to the IAP, a summary, and two attachments. An installation may wish to include additional information or present the information in a different manner within a section. As long as the IAP contains all basic requirements and all necessary information in each of the sections and attachments, additional information can be included. One exception is the "*Summary*" which must follow the format exactly.

The required format for the IAP is detailed in Appendix 1 to this guidance document. Appendix 2 of this guidance document is an outline that can be used as a guide to ensure that all necessary information is included in the plan. Appendix 3 of this guidance document is an example of a completed IAP.

## 6.1 *Summary*

The *Summary* has 11 items that must be completed. The items include:

- 1 - Installation regulatory status.
- 2 - Total number of DSERTS sites and number of sites that are Response Complete.
- 3 - Site types.
- 4 - Most widespread contaminants of concern.
- 5 - Media of concern.
- 6 - Completed removals (REM), interim remedial (IRA), remedial designs (RDs) and remedial actions (RAs).
- 7 - Current IRP phase for all DSERTS sites.
- 8 - Projected IRP phase for all DSERTS sites.
- 9 - Identified possible REMs, IRAs, and RAs.
- 10 - Total IRP funding information from inception of the IRP to completion.
- 11 - Duration of the IRP for an installation, to include the year of inception, the anticipated or actual year of completion of all remedial actions, and the anticipated or actual year of completion of the IRP including long-term monitoring.

The format for the *Summary* must be consistent with the format provided in Appendices 1 and 2. Every attempt should be made to provide the *Summary* information on one page.

## 6.2 *Section 1 - Installation Information*

*Section 1* of the IAP presents installation specific information such as location, command organization, executing agency, regulator participants, regulatory status, potential dates for petitioning for deletion from the National Priorities List (NPL), RAB status, and significant changes to the IRP from the previous fiscal year.

For NPL installations, as the installation's environmental restoration program approaches the final Record of Decision, the installation should be looking forward and initiate actions to petition the USEPA to delete the installation from the NPL. In anticipation of petitioning an installation for deletion from the NPL, *the planned date of completion of construction of all remedial actions must be projected in Section 1* along with the

potential dates for petitioning for deletion. Any planned or actual actions leading to deletion (e.g., coordination with USEPA, submission of the actual request, meeting with regulators) is to be documented.

Beginning in FY98, community members of RABs and Technical Review Committees (TRCs) will be able to apply to installations for technical assistance through the Technical Assistance for Public Participation (TAPP) program. *Potential TAPP projects are to be identified in this section.*

The information in **Section 1** should be concise and presented in a bullet-style format. This section should not exceed one page.

### **6.3    *Section 2 - Installation Description***

**Section 2** of the IAP presents current and historic activities at an installation with emphasis on activities that may have caused contamination of the environment. **Section 2** expands upon the regulatory status provided in **Section 1** and describes how the activities of the installation affect the regulatory status. **Section 2** also expands upon the public involvement status of the IRP. *Discussions of RABs and TRCs and any potential TAPP projects are to be presented.*

Any issues that may affect the scope and schedule for the overall restoration program are to be identified. This section should not exceed two pages.

### **6.4    *Section 3 - Contamination Assessment***

**Section 3** of the IAP is a clear concise presentation of an installation's environmental restoration concerns. The overview (*sub-section 3A*) includes a description of the general scope of the environmental problems that require some IRP effort as well as the type and overall scope of significant planned responses. The overview also includes a table listing all studies completed to date for an installation. A one page map which highlights key sites can be provided in this section.

Each IRP site in the DSERTS data base for an installation must be addressed in *sub-section 3B*. Each site is described to include; general location, dimensions, site type, dates of operation, contaminants of concern, media of concern, Relative Risk Site Evaluation (RRSE) rating, any special considerations, completed and current IRP phase, and recommendation for future IRP responses. Any recommendation for future response includes a discussion of strategy and assumptions, the type of response, why the response is necessary and when the future response will occur.



Many installations have sites in DSERTS that are active operations or concern lead-based paint or asbestos that are not eligible for IRP funding. Each installation must be familiar with IRP eligibility requirements and plan execution of the IRP for eligible sites only. If a DSERTS site is active or otherwise not IRP eligible, it must be stated "This site is not eligible for IRP funding and is therefore response complete under the IRP."

All IRP sites in DSERTS were required to be evaluated for relative risk by the end of FY97. *Any "Not Evaluated" or "NE" entries with on-going or future remedial activities must be explained.* IRP sites in DSERTS are not required to be evaluated for relative risk if the site is response complete or have a remedy in place.

As long as all data are provided and each DSERTS site is addressed, sites can be addressed individually or combined into clusters by project, operable unit, site type, or "Response Complete" groups.

#### **6.5 Section 4 - IRP Summary Chart**

*Section 4* includes three DSERTS generated summary reports; Phase Summary, IAP, and RAB. The Phase Summary and IAP charts both detail DSERTS sites, RRSE ratings, media of concern, and completed, current, and future phases including any removal, interim remedial, or remedial action. The DSERTS generated RAB report includes the status of a RAB at the installation.

#### **6.6 Section 5 - Schedule**

The *Schedule* section of the IAP includes a chronological list and a graphic presentation by phase of all major milestones to include the start of the IRP to completion. The IAP format, outline, and example present very generalized required phase and schedule information. More detailed schedules may be presented by the installation as desired.

*If an installation is on the NPL, the projected date for the completion of construction of the final remedial action (remedy in place) and the projected date that the installation could be deleted from the NPL must be detailed in the schedule.*

In the annual Report to Congress, DoD considers "Completion" the fiscal year that the last remedial action will be completed at an installation. For cleanups requiring many years of RA(O), i.e., ground-water treatment system, the completion year would be the FY when the system can be turned off. An RA completion date is required in *Section 5* and the IAP *Summary*.

The Army's CTC includes LTM costs to be funded by the Army IRP. The "IRP Completion" date in the IAP schedules and summary should include LTM.

## **6.7 Section 6 - Removal/Interim Remedial/Remedial Action Assessment**

*Section 6* presents an assessment of past, current and future REMs, IRAs, and RAs. All available information for each past, ongoing or projected action, including the specific type of selected remedy/action, are presented. Associated cost data for past REMs/IRAs/RAs are also presented.

The purpose of this assessment is to focus on an accurate accounting and reporting of past and currently ongoing RAs, IRAs, and REMs; the identification of RA schedules; the identification of possible removals and interim remedial actions that can be initiated without an extensive study phase; the identification, programming and execution of response actions that can be considered RAs; and the identification of innovative means to speed up the study process to allow more timely RAs.

Also included in *Section 6* are past, current, and future RA(O) and LTM activities. Associated cost data for RA(O) and LTM should be presented.

## **6.8 Section 7 - Approval and Concurrence**

The Installation Commander is responsible for execution of the IRP at his/her installation. Because the IAP defines all IRP requirements and proposes a comprehensive approach to conduct investigations and remedial actions for an installation, the Installation Commander, Garrison Commander or a formally designated subordinate authority must sign the plan acknowledging responsibility and approval. Upon submittal to the MACOM, the MACOM environmental chief must concur with the plan.

The Army encourages regulator and public participation in the preparation and updating of IAPs. *When regulators and the public (i.e., a RAB or TRC) participates in the IAP process or the installation furnishes a copy of their IAP to regulators and the public, it should be noted prior to the Installation Commander and MACOM signature blocks.*

## **6.9 Attachment 1 - Cost**

This attachment contains all funding information associated with the IRP at an installation, excluding program management. Cost information includes a chronological list and a graphic representation by phase of prior, current and future year funding information from the inception of the IRP at the preliminary assessment phase to the projected completion of the IRP. Out-year funding requirements identify all RA(O)s, equipment replacement costs, and LTM.

Prior year funding data may be presented by phase at the project level. Current year funding data must be presented at the site-level and reflect the funding levels in the installation's IRP obligation plan. *Out-year funding requirements are the installation's constrained CTC estimates. Installations should contact their MACOM for an electronic copy of their constrained CTC for inclusion in the IAP.*

While an installation is required to identify costs for RABs, TRCs, and TAPP in their IRP obligation plan, these data do not have to be documented in the IAP. Administrative costs for RABs, TRCs, and TAPP requirements are funded as program management.

#### **6.10 Attachment 2 - Restoration Advisory Boards**

*Attachment 2* concerns documenting community interest in RABs. Because the Army strongly encourages local community involvement during investigations and cleanup actions at all Army sites, each installation participating in the IRP must determine community interest in establishing and participating in a RAB.

In *Attachment 2*, any installation that has determined there is no community interest in establishing a RAB must document what efforts were taken to determine interest, what the results of the efforts were, the conclusion of those results, and what procedures the installation will take to monitor interest in the future. If the DSERTS RAB report in *Section 4* indicates "No Community Interest" in establishing a RAB, *Attachment 2* must be included in the IAP.

#### **7.0 DISTRIBUTION OF IAPs**

The DoD recommends that environmental management plans, such as IAPs, be made available to environmental regulators and the public. The Army also encourages using the IAP to brief the planned restoration activities for the installation at RAB and TRC meetings, and public meetings. It is the Installation Commander's decision to distribute an IAP outside of the Army, therefore, any requests for copies of IAPs will be forwarded to the installation for action as appropriate.

Even though the IAP is only submitted annually to USAEC, before it is distributed to the regulatory community and the public, the IAP should be reviewed and, if necessary, updated. *If an installation furnishes their IAP to the regulators and the public, it should be documented in the IAP prior to the Installation Commander and MACOM signature blocks.*

#### **8.0 SUBMITTAL**

The installation will be responsible for submitting the completed and signed plan to their MACOM. The MACOM *will submit the original and one copy of all signed final IAPs to USAEC, Environmental Restoration Division, Program Management Branch, by March 15th of each fiscal year.*

If the USAEC does not receive all required IAPs from the MACOMs on March 15th, the amount of the delinquent installation's total IRP requirements for the next fiscal year will not be included in the MACOM's total requirements. The MACOM total requirements are used to determine the allocation of funds for the FY+1.

MACOMs should mail all IAPs to:

Commander  
U.S. Army Environmental Center  
ATTN: SFIM-AEC-ERP  
Aberdeen Proving Ground, MD 21010-5401

FAX: (410) 671-1548  
DSN 584-1548

## **9.0 SUMMARY OF CHANGES TO IAP REQUIREMENTS**

### **9.1 *Incorporating Constrained Cost-to-Complete***

Out-year funding requirements in the IAP are the installation's "constrained" CTC estimates. The USAEC provides out-year funding levels to MACOMs, who then provide installations with authorized funding level for the out-years. Installations constrain their CTC requirements to the funding levels and now must include the constrained requirements in their IAP. *See Sections 5.2 and 6.9 of this guidance.*

### **9.2 *Eliminating Environmental Program Requirements (EPR) Documentation***

Because the Army's IRP budget is based on site-level funding data using DSERTS and CTC data EPR report numbers are no longer needed in the IAP. EPR data are extracted from CTC data and exported into the DSERTS. The USAEC consolidates and transfers installation-level data for the IRP to the EPR database.

### **9.3 *Construction Complete and Deletion from the National Priorities List***

This modification of the IAP affects only those installations on the NPL. Installations that are on the NPL must indicate in *Section 1-Installation Information* and in *Section 5 - Schedules*, the planned date when all construction is complete for remedial actions (remedy in place), the planned date for petitioning the USEPA to remove the installation from the NPL, or the projected date of deletion from the NPL. *See Sections 6.2 and 6.6 of this guidance.*

#### **9.4    *Noting Regulator and Public Involvement***

The Army encourages regulator and public participation in the preparation and updating of IAPs at all installations. If regulators or the public are involved in the preparation or updating of IAPs or if an installation furnishes a copy of an IAP to its regulators or the public (RABs or TRCs), it should be documented in *Section 7 - Approval and Concurrence*. See Sections 6.8 and 7.0 of this guidance.

#### **9.5    *Identification of Potential TAPP Requirements***

Any installation that may require Technical Assistance for Public Participation for their RAB/TRC must note the requirement in *Section 1 - Installation Information* and discuss the possible project in *Section 2 - Installation Description*. See Sections 6.2, 6.3, and 6.9 of this guidance.

#### **9.6    *Number of IAP Copies To Be Submitted***

Instead of three copies, only two copies of the IAP need to be submitted to the USAEC. See Section 8.0 of this guidance.

## ***APPENDIX 1***

### ***Format***

## INSTALLATION ACTION PLAN FORMAT

### SUMMARY [Not to Exceed (NTE) 1 page]

1. Regulatory Status
2. Total Number of DSERTS Sites
3. Different Site Types
4. Most Widespread Contaminants of Concern
5. Media of Concern
6. Completed REM/IRA/RD/RA
7. Current IRP Phase
8. Projected IRP Phase
9. Identified Possible REM/IRA/RA
10. Total IRP Funding
11. Duration of IRP

### 1. INSTALLATION INFORMATION

[NTE 1 page]

(bulleted style to include)

- A. Installation Locale
- B. Command Organization
  - Lead IRP Executor
- C. Regulator Participation
- D. Regulatory Status
- E. Projected date for construction complete and removal from NPL
- F. Restoration Advisory Board/TRC/TAPP Status
- G. Significant Changes to IRP from Previous Year

### 2. INSTALLATION DESCRIPTION [NTE 2 pages]

- A. Current Activity Status
- B. Historic Activity Information
- C. Regulatory Status
- D. Public Involvement Status

### 3. CONTAMINATION ASSESSMENT

- A. Overview of IRP to date
- B. DSERTS site descriptions to include
  - identification by DSERTS number and name
  - general location
  - general size or dimensions
  - site type (cluster by site type when practical)
  - dates of operation
  - contaminants of concern
  - media of concern
  - relative risk site evaluation (RRSE) rating
  - completed, and current IRP phase
  - completed, and current REM/IRA/RD/RA

--recommendation for future IRP response

### 4. IRP SUMMARY CHARTS

- A. DSERTS Phase Summary Report
- B. DSERTS Relative Risk IAP Summary Report
- C. DSERTS RAB Report

### 5. SCHEDULE

- A. Start date of IRP at installation
- B. Past phase completion milestones
- C. Projected phase completion milestones
- D. IAG/FFA driven milestones (if applicable)
- E. Projected ROD/DD dates
- F. Projected construction completion and deletion from NPL
- G. Estimated RA Completion
- H. Estimated IRP Completion
- I. Chart (inception to completion)

### 6. REMOVAL/INTERIM REMEDIAL/ REMEDIAL ACTION ASSESSMENT

- A. Sites/clusters that have been assessed
- B. Past REM/IRA/RD/RA/RA(O)/LTM per site/clusters (include costs)
- C. Ongoing REM/IRA/RD/RA/RA(O)/LTM
- D. Future REM/IRA/RA/RA(O)/LTM opportunities
- E. Innovative means to expedite study process to RA phase

### 7. APPROVAL AND CONCURRENCE

- Regulator and public involvement
- Signature of Installation Commander
- Signature of MACOM

### ATTACHMENT 1 - COST

- A. By phase (include prior, current & future years)
- B. By fiscal year (include prior, current & future years)
- C. Total Cost
- D. Chart (total from inception to completion)

### ATTACHMENT 2 - RAB INFORMATION

- A. Efforts taken to determine interest
- B. Results of efforts taken
- C. Conclusion of no community interest
- D. Follow-up procedures

## ***APPENDIX 2***

### ***Outline***



## INSTALLATION ACTION PLAN OUTLINE

### SUMMARY

Not to Exceed (NTE) 1 page

#### 1. Regulatory Status

List status

-- i.e., Non-NPL with RCRA Part B Permit or NPL Installation and list the HRS Score.

#### 2. Total Number of DSERTS Sites and Number of DSERTS Sites with Response Complete (RC)

-- i.e., 36/10.

#### 3. Different Site Types

List most significant site types

-- i.e., 12 landfills, 2 lagoons, 6 disposal pits

#### 4. Most Widespread Contaminants of Concern

-- i.e., explosives, petroleum/oil/lubricants

#### 5. Media of Concern

-- i.e., groundwater, soil

#### 6. Completed REM/IRA/RA

List Action, Year, Total Cost

-- i.e., Soil Incineration (1988)

Total Cost \$9,209,000

Waterline Extension (1986)

Total Cost \$5,269,000

#### 7. Current IRP Phase

-- i.e., RC at 3 sites

RI at 12 sites

FS at 1 sites

SI at 3 sites

RI/FS at 1 site

#### 8. Projected IRP Phase

-- i.e., RC at 9 sites

FS at 1 site

RI/FS at 6 sites

RD/RA/LTM at 2 sites

#### 9. Identified Possible REM/IRA/RA

-- i.e., Extension and expansion of GW Pump and Treat

Soil Incineration at 2 sites

#### 10. Total IRP Funding

List all prior year funds, current year funds, and future (CTC) requirements, then total.

#### 11. Duration of IRP

Year of IRP Inception

Year of RA Completion

Year of IRP Completion

## **1. INSTALLATION INFORMATION**

NTE 1 page

### **A. Installation Locale**

1. City, County and State
  - approximate situation to high population densities
2. Size (in acres)

### **B. Command Organization**

1. Major Command and Subcommand (if applicable)
  - identification of organization within commands responsible for IRP
2. Installation
  - identification of organization within installation responsible for IRP
3. Lead IRP Executor
  - a. Investigation Phase Executing Agency
  - b. Remedial Action Phase Executing Agency

### **C. Regulator Participation**

1. Federal
  - identification of regulating EPA region & branch
2. State
  - identification of regulating State agency

### **D. Regulatory Status**

1. NPL installation/site with or without IAG
2. Non-NPL with RCRA Corrective Action
3. Non-NPL without RCRA Corrective Action under State regulatory requirements
4. Notice of Violation or Consent Order, etc.

### **E. Projected dates for construction complete and removal from the NPL**

### **F. Restoration Advisory Board/Technical Review Committee/TAPP Status**

### **G. Significant Changes to IRP from Previous Year (if any)**

1. Proposed to/placed on the NPL
2. Petitioned to be removed from the NPL
3. Removed from the NPL
4. New RCRA corrective actions
5. Issuance of an NOV or a consent order
6. Confirmed or suspected off-post contamination
7. Determined no interest in RAB formation

## **2. INSTALLATION DESCRIPTION**

NTE 2 pages

### **A. Current Activity**

1. Active/Inactive
2. Scheduled for Closure

### **B. Historic Activity**

1. When Opened
2. Purpose of Installation
  - a. ammunition production
  - b. training
  - c. information systems repair, etc.
3. Periods of Inactivity

- 4. Major Tenant Operations
  - a. history
  - b. type of operation
- C. Regulatory Status
  - 1. Lead Regulator
    - a. USEPA
    - b. state
    - c. multiple
  - 2. Regulatory Driver
    - a. NPL with IAG/FFA  
--include site versus installation if applicable
    - b. NPL without approved IAG
    - c. Non-NPL with Corrective Action from Part B Permit
    - d. Non-NPL with Notice of Violation, etc.
- D. Public Involvement Status
  - 1. Technical Review Committee
  - 2. Restoration Advisory Board
    - a. established
    - b. determining interest
    - c. no community interest
  - 3. Technical Assistance for Public Participation
    - a. Community member interest
    - b. potential project

### 3. CONTAMINATION ASSESSMENT

- A. Assessment Overview
  - 1. Initiation of IRP
    - a. when
    - b. why
  - 2. Description of major IRP concerns
    - a. number and types of sites
    - b. off-post contamination and responses (if any)
    - c. regulatory interest
    - d. public interest
  - 3. Responses to date addressing major IRP concerns
    - a. investigations completed and ongoing
    - b. remedial actions completed or ongoing
    - c. formation of TRC or RABs
  - 4. Include table of all studies completed
  - 5. Include map if possible
- B. Site Descriptions (by operable unit when applicable)
  - 1. Identification by DSERTS number and name
  - 2. General location within installation
  - 3. General size or dimensions of site
  - 4. Site type (use DSERTS as guideline)
    - a. fire training area
    - b. landfill
    - c. spill, etc.

5. Period of contamination
6. Contaminants of concern (use DSERTS as guideline)
  - identification of contaminants
7. Media of concern
  - a. soil
  - b. surface water/sediment
  - c. groundwater
  - d. air
  - e. multiple
8. Relative Risk Site Evaluation Rating
  - a. 1A - "High" with regulator agreement
  - b. 2A - "Medium" with regulator agreement
  - c. 3A - "Low" with regulator agreement
  - d. 1B - "High" with no regulator agreement
  - e. 2B - "Medium" with no regulator agreement
  - f. 3B - "Low" with no regulator agreement
  - g. NR - Not Required
  - h. NE - Not Evaluated

Any NE entry should be explained.

9. Completed IRP Phase
  - a. preliminary assessment/site inspection
  - b. site investigation
  - c. remedial investigation/feasibility study
  - d. removal action (REM)
  - e. interim remedial action (IRA)
  - f. remedial design (RD)
  - g. remedial action (RA)
  - h. remedial action operations (RA(O))
  - i. long-term monitoring (LTM)
10. Current IRP Phase
  - a. current investigation phase
  - b. response complete
  - c. REM ongoing
  - d. IRA ongoing
  - e. RD ongoing
  - f. RA ongoing
  - g. RA(O) ongoing
  - h. LTM ongoing
11. Future IRP Phase
  - a. response complete
  - b. recommendation for future phase
    - anticipated investigation phase or REM/IRA/RA/RA(O)/LTM strategy
    - why future phase is needed
    - type of remediation anticipated

#### **4. IRP SUMMARY CHARTS**

- A. DSERTS Report Menu Option A -- Phase Summary report.
- B. DSERTS Report Menu Option V -- Relative Risk.  
Option (8) -- Risk Installation Action Plan report
- C. DSERTS Report Menu Option T -- RAB report.

#### **5. SCHEDULE**

- A. Start Date of IRP at Installation
- B. Past Phase Completion Milestones
- C. Projected Phase Completion Milestones
- D. IAG/FFA Driven Milestones
- E. Projected ROD/DD Approval Date
- F. Projected construction complete and NPL Deletion Date
- G. Estimated Completion Date of All RA Activities
- H. Estimated Completion Date of IRP at Installation
- I. Chart (include IRP inception to completion by phase)

#### **6. REMOVAL/INTERIM REMEDIAL/REMEDIAL ACTION ASSESSMENT**

- A. Total Sites Assessed Per Site/Clusters
- B. Past REM/IRA/RD/RA/RA(O)/LTM Per Site/Clusters (include cost)
- C. Ongoing REM/IRA/RD/RA/RA(O)/LTM Activities
- D. Future REM/IRA/RA/RA(O)/LTM Opportunities
- E. Innovative Means to Expedite Process to RA Phase

#### **7. APPROVAL AND CONCURRENCE**

- A. Regulator and Public Involvement
  - 1. Note if regulators/RABs/TRCs participated in updating the IAP
  - 2. Note if regulators/RABs/TRCs were furnished a copy of the IAP
- B. Approval
  - 1. Signature of the Installation Commander, Garrison Commander, or officially designated signature authority with appropriate signature block
- C. Concurrence
  - 1. Signature of the Chief of the Environmental Office at the major Army command with appropriate signature block

#### **ATTACHMENT 1.**

##### **COST**

- A. By Phase
  - 1. Include prior, current, future years
  - 2. Include DSERTS site numbers
- B. By Fiscal Year
  - 1. Include prior, current and future years
- C. Total Cost (from inception to completion of the IRP)
- D. Chart (include total costs from inception to completion by phase)

## **ATTACHMENT 2.**

### **RESTORATION ADVISORY BOARD (RAB) INFORMATION**

#### **A. Efforts Taken To Determine Interest**

-Include any action taken to determine interest, i.e., surveys, public meetings, advertisements, etc.

#### **B. Results**

-Include results of each action taken to determine interest

#### **C. Conclusions**

#### **D. Follow-up Procedures**

-Include how often follow-up procedures to monitor any changes in community interest are planned.

## ***APPENDIX 3***

### ***Example IAP***

## INSTALLATION ACTION PLAN EXAMPLE

### CAMP SWAMPY SUMMARY

**1. REGULATORY STATUS:**

RCRA-permitted, Confirmed off-post ground-water contamination

**2. TOTAL NUMBER OF DSERTS SITES:**

18 Sites/11 Response Complete

**3. DIFFERENT SITE TYPES:**

7 Tank Areas	1 Discharge Point
4 Storage Areas	1 Fire Training Pit
2 Pond Sites	2 Landfill Areas
1 Pit Area referred to as an "Ice Well"	

**4. MOST WIDESPREAD CONTAMINANTS OF CONCERN:**

Trichloroethylene, Petroleum/Oil/Lubricants (POL)

**5. MEDIA OF CONCERN:**

Groundwater, Soil

**6. COMPLETED REM/IRA/RA:**

IRA - FY92 Bottled Water to 2 Residences	(\$5K)
IRA - FY92-94 Water Line Hook-Up	(\$150K)
IRA - FY92-94 Ground-Water Treatment Plant	(\$2,811K)
IRA - FY95 GWT Hook-up	(CSWPY-018, \$360K)
REM - FY96 Soil Removal	(CSWPY-016, \$550K)
IRA - FY96 GWT Hook-up	(CSWPY-008, \$258K) (CSWPY-009, \$430K)
IRA - FY97 Soil Treatment	(CSWPY-008, \$1,050K) (CSWPY-009, \$465K)

**7. CURRENT IRP PHASE:**

RC at 11 sites	IRA at 2 sites	LTM at 3 sites
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**8. PROJECTED IRP PHASE:**

RC at 11 sites	RD/RA at 5 sites	LTM at 7 sites
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**9. IDENTIFIED POSSIBLE REM/IRA/RA:**

RA at 5 sites

**10. TOTAL IRP FUNDING:**

Prior Year Funds	\$10,171K
FY98 Funds	\$ 835K
Future Requirements	<u>\$ 9,840K</u>
Total	\$20,846K

**11. DURATION OF IRP:**

Year of IRP Inception	1992
Year of RA Completion	2007
Year of IRP Completion	2009



## **1. INSTALLATION INFORMATION**

### **LOCALE**

Camp Swampy is located on 1,000 acres of land in New County, New Hampshire. Highway 10 is the eastern boundary of the installation and the Connecticut River is located immediately west of the installation. Camp Swampy is 1.5 miles north of the town of Kleene, New Hampshire (population 10,500). Washup, Vermont (population 3,100) is located 1.75 miles southwest of Camp Swampy on the western side of the Connecticut River.

### **COMMAND ORGANIZATION**

- Major Command: U.S. Army Troop Command
- Installation: Camp Swampy, Environmental Office

### **INSTALLATION RESTORATION PROGRAM (IRP) EXECUTOR**

- IRP Executor: U.S. Army Corps of Engineers, Northeast Division, Kleene District

### **REGULATOR PARTICIPATION**

- Federal: U.S. Environmental Protection Agency, Region I, Emergency Response
- State: New Hampshire Department of Environmental Services and Vermont  
Department of Environmental Conservation

### **REGULATORY STATUS**

- RCRA Part B Permit, Nov 93

### **PROJECTED DATE FOR CONSTRUCTION COMPLETION AND REMOVAL FROM THE NPL**

- Not applicable

### **RESTORATION ADVISORY BOARD STATUS**

In FY97 the local community was surveyed to determine if the Technical Review Committee should be converted to a Restoration Advisory Board (RAB). The Installation Commander concluded that there was not enough interest to sustain a RAB for Camp Swampy. Potential TAPP project in FY98.

### **SIGNIFICANT CHANGES TO IRP FROM THE PREVIOUS YEAR (FY97)**

- Determined no community interest in a RAB.
- Potential TAPP project identified by TRC community members.
- Five sites are recommended for remediation.

## 2. INSTALLATION DESCRIPTION

Camp Swampy is an active installation serving as the Army's Center of Expertise in cold regions science and engineering. The mission of Camp Swampy is to perform basic and applied research in snow, ice, and frozen ground and provide the Army with practical engineering research to develop equipment and procedures for application in cold regions.

In 1960, the Army leased 492 acres of land from Trumpet College to construct a research facility. Prior to construction, the land was used primarily for agricultural purposes, however, in the 1940's, gravel was mined on the western edge of the acreage.

The Army constructed the first building in 1960 and Camp Swampy was officially established in 1961. In 1972, 508 acres of land along the western border of the original tract were purchased, expanding Camp Swampy to its current size of 1000 acres.

The installation is roughly rectangular in shape. Land use within 1/4 mile is primarily rural and residential, with zones of light industry, commercial/service, cropland/pasture, and mixed forest.

In 1991, the Army began investigating all potential areas of environmental concern at Camp Swampy by implementing its environmental response authority under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)/Superfund Amendments and Reauthorization Act (SARA). Having a preliminary Hazard Ranking System (HRS) score of 22.05, Camp Swampy did not warrant National Priorities List (NPL) designation.

By December 1992, a Technical Review Committee (TRC) was formed to address Camp Swampy's restoration concerns. This committee includes representatives of the Army, the U.S. Environmental Protection Agency (USEPA) Region I, the New Hampshire Department of Environmental Services, the Vermont Department of Environmental Conservation, the town of Kleene, New Hampshire, the village of Washup, Vermont, and Trumpet College (the owner of 492 acres of Camp Swampy).

In November and December 1996, Camp Swampy canvassed its surrounding communities for potential interest in establishing a Restoration Advisory Board (RAB). After all efforts were completed, the Installation Commander determined that there was not enough sustainable community interest to establish a RAB. The TRC has community members from Kleene NH, Washup, VT, and Trumpet College. The TRC community members have expressed interest in the obtaining some technical support using the Technical Assistance for Public Participation (TAPP) program. The TRC community members would like an independent, objective environmental technology firm to evaluate the effectiveness of the pump and treat remedial technologies.

In November 1993, Camp Swampy was issued a Resource Conservation and Recovery Act (RCRA) Part B permit. Under the corrective action portion of the permit, investigation of inactive or closed sites of environmental concern at Camp Swampy were conducted.

### 3. CONTAMINATION ASSESSMENT

#### A. ASSESSMENT OVERVIEW OF IRP

Camp Swampy has a total of 18 Defense Sites Environmental Restoration Tracking System (DSERTS) including storage tanks, sanitary and construction debris landfills, open storage areas, fire training sites, and vehicle maintenance areas. See map M-1 for details.

TCE is the primary contaminant of concern at Camp Swampy. In 1992, a Preliminary Assessment/Site Investigation (PA/SI), indicated TCE in three of four installation wells that produce approximately 1 million gallons of water per day for the installation's cooling system. The cooling system water is discharged into the Connecticut River. TCE was detected at the Camp Swampy storm water discharge point to the Connecticut River in two residential wells on the Vermont side of the Connecticut River and sporadically in the Connecticut River as far as 100 feet downstream of the Camp Swampy storm water discharge.

Camp Swampy, using in-house capabilities, analyzed the water of concerned nearby residents. TCE was not detected in any additional drinking water supply wells. The Army provided bottled water to the two owners of the TCE-contaminated wells until the residents were connected to the municipal water supply system in 1993. Continued sampling of residential wells in the area identified one additional TCE contaminated residential well in Vermont. This resident was also connected to a municipal water supply.

A Remedial Investigation (RI) was initiated in 1992 to define sources of contamination at Camp Swampy, including sources of TCE in production wells. The RI examined eighteen areas of concern identified in the PA/SI. These areas are identified as CSWPY-001 through CSWPY-018 in the DSERTS. The RI report was completed in September 1992 and recommended 11 sites for further investigation (DSERTS sites CSWPY-001, -002, -005, -008, -009, -011, -013, -015-018) and 7 sites (CSWPY-003, -004, -006, -007, -010, -012, -014) for no further response.

The source of off-post TCE contamination was determined to be CSWPY-018, the discharge point to the Connecticut River. The RI identified CSWPY-001, CSWPY-002, and CSWPY-009 as the primary sources of TCE contamination to the production wells and ultimately to the discharge site. An old sanitary landfill (CSWPY-005) also had TCE contamination in the ground-water.

Releases of petroleum-related contaminants occurred at several sites. Since 1960, a total of 30 underground storage tanks (USTs) were installed at Camp Swampy. The USTs were used to store a variety of fuels and chemicals including No. 5 fuel oil, No. 2 fuel oil, gasoline, and TCE. To date, 25 USTs have been removed with funds from the Army's operations and maintenance account (OMA). Seven of the 25 former tank sites of concern included CSWPY-001, -002, -003, -004, -006, -008, and -015.

Ground-water and soil contamination was detected at former UST sites CSWPY-001, -002, -008 and at a perched water table near CSWPY-015. Contamination was not detected at sites CSWPY-003, -004, and -006; all recommended for no further response under the IRP. Another

[illegible]

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site with POL, TCE and dichloroethylene (DCE) contaminants was CSWPY-013, the Fire Training Area.

The 7 remaining sites of environmental concern at Camp Swampy in the RI include a construction debris landfill (CSWPY-007), a permitted storage area (CSWPY-010), a concrete storage pad (CSWPY-011), a salvage yard (CSWPY-014), a former pesticide storage area (CSWPY-016) and two containment ponds (CSWPY-012 and CSWPY-017). Only CSWPY-011, -016 and -017 were recommended for additional investigation.

In 1993, Camp Swampy was issued a RCRA permit and the USEPA completed a RCRA Facility Assessment (RFA). Eighteen solid waste management units (SWMUs) were identified in the RFA and the 11 sites recommended by the RI report for further investigation were recommended for further investigation under RCRA. A RCRA Facility Investigation (RFI) was begun in January 1994. In May 1995, the RFI was completed and three additional sites were recommended for no further action; CSWPY-011, -013, and 017. The Corrective Measures Study (CMS) initiated in September 1995 for 8 sites was completed in September 1996. The CMS recommended continued groundwater treatment of all sites connected to the treatment plant and additional corrective action at 5 of the eight sites. No action was recommended for CSWPY-016, a former pesticide storage area.

A permanent groundwater treatment facility was installed to remove TCE from the water provided by the production wells. In addition to the production wells, extraction wells at CSWPY-018, -008 and -009 have been connected to the treatment facility.

Table 1 lists all previous studies completed at Camp Swampy.

TABLE 1. PREVIOUS STUDIES AT CAMP SWAMPY

1. Camp Swampy, June 1986, Camp Swampy's First 25 Years, Internal Camp Swampy Publication, Kleene, New Hampshire.
2. Camp Swampy, 1991, Aerial Topographic Survey Plan, Schmidt Bors. Inc., Professional Surveyors, Framingham, Massachusetts.
3. Camp Swampy, 26 April 1992, Site Investigation Report, Internal Camp Swampy Publication, Kleene, New Hampshire.
4. Environmental XYZ, Inc. Work Plan, Field Sampling Plan, Health and Safety Plan and Quality Assurance Project Plan for Remedial Investigation, Camp Swampy, Kleene, New Hampshire, Arlington, Virginia.
5. Environmental Photographic Interpretation Center (EPIC), September 1992, Site Analysis of the Camp Swampy, U.S. EPA, Las Vegas, Nevada.
6. Faran, Karen J., undated, History of TCE Use and Handling at Camp Swampy, Camp Swampy Internal Report 1084, Kleene, New Hampshire.
7. Gatto, Lawrence W. and Sally A. Shoop, May 1992, Geology and Geohydrology at Camp Swampy: A Preliminary Site Investigation, Camp Swampy Internal Report 1088, Kleene, New Hampshire.
8. Marion, Dr. Giles, January 1992, The Fate and Treatment of Trichloroethylene (TCE) in Air, Water, and Soil: A Compilation of References and Abstracts, Camp Swampy Internal Report 1081, Kleene, New Hampshire.
9. Northway Research Center, Inc., 10 December 1992, Final Report on the Findings of the Petrex Soil Gas Survey Performed at the U.S. Army Camp Swampy, Kleene, New Hampshire, Farmington, Connecticut.
10. Perry, L.B., et. al., 1992, Camp Swampy's Site Investigation and Analysis for Trichloroethylene, Camp Swampy Internal Report, Kleene, New Hampshire.
11. Walther Engineering Corporation, July 1992, Groundwater Investigation Washup, Vermont, prepared for the Vermont Department of Environmental Conservation, Waterbury, Vermont.
12. Environmental XYZ, Inc. (E & E), October 1993, Final Remedial Investigation Report for Camp Swampy, Kleene, New Hampshire, Arlington, Virginia.
13. Environmental XYZ, Inc., July 1995, Final RCRA Facility Investigation for Camp Swampy, Kleene, New Hampshire, Arlington, Virginia.
14. Environmental XYZ, Inc., September, 1996, Corrective Measures Study for Camp Swampy, Kleene, New Hampshire, Arlington, Virginia.

## B. SITE DESCRIPTIONS

### Above Ground Storage Tank Site (CSWPY-001):

CSWPY-001 is located adjacent to the northeast side of the main laboratory building. On 2 Jul 1970, a 10,000 gallon above ground TCE tank exploded on 2 Jul 70, resulting in the release of approximately 3,000 gallons of TCE.

CSWPY-001 is in close proximity to CSWPY-002, a former TCE and fuel oil leaking underground storage tank area, and CSWPY-009, an underground TCE storage cylinder. A plume of TCE contamination from these three sites is the source of TCE contamination in the installation production wells. An interim ground-water pump and treat action is ongoing at the site. The Corrective Measures Study (CMS) recommended continued ground-water treatment and remediation of contaminated soil.

Contaminant of Concern:	TCE
Media of Concern:	Groundwater, soil
RRSE Rating:	1A (High with regulatory agreement)
Completed IRP Phase to Date:	PA/SI, RI, RFI, CMS
Current IRP Phase:	Proposed Plan/Record of Decision IRA for GWT
Future IRP Phase:	Corrective Action (CA) for soil GWT RA(O)/LTM

Recommendation for future response: Ongoing interim remediation of groundwater included connection to the production well ground-water treatment facility. Long-term monitoring of groundwater and remediation of soil will be necessary at CSWPY-001.

### Former TCE and Fuel Oil USTs (CSWPY-002):

CSWPY-002 is located adjacent to the main laboratory building at the northeast corner. This site is the former location of two underground storage tanks (USTs); a 10,000 gallon tank containing TCE and a 12,000 gallon tank for fuel oil storage. The TCE tank was removed in 1972 and replaced by a 10,000 gallon fuel oil tank. The 10,000 gallon and 12,000 gallon fuel oil tanks were removed in 1990. CSWPY-002 is in close proximity to CSWPY-001, TCE spill site and CSWPY-009, an underground TCE storage cylinder. A plume of TCE contamination from these three sites is the source of TCE contamination in the installation production wells. An interim ground-water pump and treat action is ongoing at the site. The CMS recommended continued ground-water treatment and remediation of contaminated soil.

Contaminant of Concern:	TCE, Petroleum, Oil and Lubricants (POL)
Media of Concern:	Groundwater, soil
RRSE Rating:	1A (High with regulatory agreement)
Completed IRP Phase to Date:	PA/SI, RI, RFI, CMS
Current IRP Phase:	Proposed Plan and Record of Decision IRA for GWT

(CSWPY-002 continued)

Future IRP Phase: CA for soil  
GWT RA(O)/LTM

Recommendation for future response: Ongoing interim remediation of groundwater included connection to the production well ground-water treatment facility. Long-term monitoring of groundwater and remediation of soil will be necessary at CSWPY-002.

**Former Fuel Oil UST (CSWPY-003):**

CSWPY-003 is located on the eastern side of the Facilities Engineering building. This site is the former location of the Facilities Engineering building fuel oil tank, which was installed in 1968. In 1990, this UST failed tightness tests and was removed and replaced by an above ground storage tank using operation and maintenance account funds. In 1991, a RI was completed and no contamination was detected.

Contaminant of Concern: POL  
Media of Concern: Groundwater, soil  
RRSE Rating: Not required (RC)  
Completed IRP Phase to Date: PA/SI, RI  
Current IRP Phase: Response Complete  
Future IRP Phase: Response Complete

Recommendation for future response: No contamination was detected during the RI, therefore no further action is planned for this site under the IRP.

**Current Fuel Oil UST (6,000 Gals, 1990) (CSWPY-004):**

CSWPY-004 is located approximately 60 feet southeast of the southern corner of the Facilities Engineering building. A 6,000 gallon UST was installed at this site in 1990 and is still in use.

Contaminant of Concern: POL  
Media of Concern: Soil  
RRSE Rating: Not required (RC)  
Completed IRP Phase to Date: PA/SI, RI  
Current IRP Phase: Response Complete  
Future IRP Phase: Response Complete

Recommendation for future response: Because the site is active and there has been no known release from the tank, no further response is planned under the restoration program.

**Old Sanitary Landfill (CSWPY-005):**

CSWPY-005 is located near the northeast corner of the installation. The 19 acre landfill operated from 1962 until 1979 when the landfill area was covered with clean fill. Investigation has detected low levels of TCE and metals in the groundwater downgradient of the landfill.



(CSWPY-005 continued)

The CMS determined that the feasible remedial response to the detected contamination at the landfill was to cap and monitor.

Contaminant of Concern:	TCE, metals
Media of Concern:	Groundwater, soil
RRSE Rating:	2A (Medium with regulator agreement)
Completed IRP Phase to Date:	PA/SI, RI, RFI, CMS
Current IRP Phase:	Proposed Plan/Record of Decision
Future IRP Phase:	CA
	LTM

Recommendation for future response: Capping was selected as the remediation response for the landfill followed by monitoring.

**Former Gasoline USTs (CSWPY-006):**

CSWPY-006 is located approximately 60 feet northwest of the northern corner of the Greenhouse building. This site is the former location of two 2,000 gallon USTs used for gasoline storage. These tanks failed tightness tests and were removed in 1990. No contamination was detected during the RI.

Contaminant of Concern:	POL
Media of Concern:	Soil
RRSE Rating:	Not required (RC)
Completed IRP Phase to Date:	PA/SI, RI
Current IRP Phase:	Response Complete
Future IRP Phase:	Response Complete

Recommendation for future response: No contamination was detected during the RI and no action is planned under the IRP.

**Construction Debris Landfill (CSWPY-007):**

CSWPY-007 is located approximately 600 feet northwest of the northern corner of the Hazardous Waste Storage building. The site was operational until 1980 and contains construction debris. No contamination was detected during the RI.

Contaminant of Concern:	Inert Material
Media of Concern:	Soil
RRSE Rating:	Not required (RC)
Completed IRP Phase to Date:	PA/SI, RI
Current IRP Phase:	Response Complete
Future IRP Phase:	Response Complete

(CSWPY-007 continued)

Recommendation for future response: No evidence of contamination was found during the original investigations, therefore no further response is planned under the restoration program.

**Fuel Dispensing Area (CSWPY-008):**

CSWPY-008 is an active fuel dispensing facility located along ATCO Road. Each individual fuel dispensing area had three USTs which have been recently replaced. Over the years, a variety of fuels, primarily gasoline, has been stored in the tanks. When the tanks were replaced, free product was found floating on the groundwater and soil is also contaminated. An interim remedial action to remove the free product was completed by connecting extraction wells to an existing groundwater treatment system. Soil treatment has been completed at the site. The CMS recommended continuation of ground-water treatment and monitoring as the final remedial action for the site.

Contaminant of Concern:	POL
Media of Concern:	Soil, Groundwater
RRSE Rating:	1A (High with regulatory agreement)
Completed IRP Phase to Date:	PA/SI, RI, RFI, IRA for GW, IRA for soil, CMS
Current IRP Phase:	Proposed Plan/Record of Decision
	GWT RA(O)/LTM
Future IRP Phase:	GWT RA(O)/LTM

Recommendation for future response: It is expected that continued treatment of groundwater to meet the established cleanup standards will be the only future remediation requirements for CSWPY-008.

**Research Ice Well (CSWPY-009):**

CSWPY-009 is located approximately 60 feet north of the western most side of the Main Laboratory building. CSWPY-009 is an "ice well"; a steel-cased 200 feet deep cylinder in which TCE was used in refrigeration lines and drilling fluid mixtures. Groundwater and soil at the site is contaminated with several constituents including TCE. Also in the vicinity of CSWPY-009 is the area of TCE-contaminated soils and groundwater resulting from the 1970 explosion of the former TCE tank (CSWPY-001) and CSWPY-002. A plume of TCE contamination from these three sites is the source of TCE contamination in the installation's production wells. An interim remedial action to remove contaminated groundwater was completed by connecting extraction wells to an existing groundwater treatment system. Soil treatment has been completed. The CMS recommended continuation of ground-water treatment and monitoring as the final remedial action for the site.

Contaminant of Concern:	TCE, PCE, methylene chloride, and trimethylbenzene
Media of Concern:	Groundwater, soil
RRSE Rating:	1A (High with regulatory agreement)
Completed IRP Phase to Date:	PA/SI, RI, RFI, IRA for GW, IRA for soil, CMS

(CSWPY-009 continued)

Current IRP Phase:	Proposed Plan/Record of Decision RA(O)/LTM for GWT
Future IRP Phase:	RA(O)/LTM for GWT

Recommendation for future response: It is expected that continued treatment of groundwater to meet the established cleanup standards will be the only future remediation requirements for CSWPY-009.

**Current Permitted Storage Area (CSWPY-010):**

CSWPY-010 is the containerized hazardous waste storage building located at the corner of Well and House Roads and adjacent to site CSWPY-011. Because CSWPY-010 is an active facility, remedial activities are not eligible for funding using IRP funds. An RI was initiated using IRP funds because the site was previously eligible because it was grandfathered into the IRP through the Defense Sites Environmental Restoration Tracking System prior to Sep 91. The RI indicated no contamination from past activities at CSWPY-010.

Contaminant of Concern:	Solvents, Metals
Media of Concern:	Soil
RRSE Rating:	Not required (RC)
Completed IRP Phase to Date:	PA/SI, RI
Current IRP Phase:	Response Complete
Future IRP Phase:	Response Complete

Recommendation for future response: No contamination was detected during the RI and no further action is planned for this site under the IRP.

**Concrete Storage Pad (CSWPY-011):**

CSWPY-011 is a concrete storage pad located in the northwest portion of the installation along House Road, north of production well 1 and northwest of production well 5. The Kleene town production well is located approximately 1000 feet north of the installation near CSWPY-011. The storage pad was built in 1974, and was used for the storage of containerized wastes, including TCE. During the RI, one soil sample indicated contamination slightly above the detection level. Additional confirmatory sampling during the RFI indicated no additional investigation was necessary.

Contaminant of Concern:	TCE, PCE
Media of Concern:	Soil
RRSE Rating:	Not required (RC)
Completed IRP Phase to Date:	PA/SI, RI, RFI
Current IRP Phase:	Response Complete
Future IRP Phase:	Response Complete

(CSWPY-011 continued)

Recommendation for future response: Contamination significant enough to warrant remediation was not detected during the investigation phase and no further action is planned for this site under the IRP.

**Exterior Test Pond (CSWPY-012):**

CSWPY-012 is an exterior test pond used for sea ice experimentation located in the southwestern corner of the installation. This pond is fed by water from the Camp Swampy storm sewer system and, as a result, may contain TCE. The site is still used and was grandfathered into the IRP program through DSERTS. The RI did not indicate contamination at CSWPY-012.

Contaminant of Concern:	TCE
Media of Concern:	Soil
RRSE Rating:	Not required (RC)
Completed IRP Phase to Date:	PA/SI, RI
Current IRP Phase:	Response Complete
Future IRP Phase:	Response Complete

Recommendation for future response: Because the site is active, no further response is planned under the restoration program.

**Fire Training Area (CSWPY-013):**

CSWPY-013 is a former gravel pad used for the disposal of spent TCE, located on the western side of the Logistics and Supply building. During the RI, one soil sample indicated contamination slightly above the detection level. Confirmatory sampling during the RFI indicated no additional investigation was necessary.

Contaminant of Concern:	TCE, Dichloroethylene, POL
Media of Concern:	Groundwater, Soil
RRSE Rating:	Not required (RC)
Completed IRP Phase to Date:	PA/SI, RI, RFI
Current IRP Phase:	Response Complete
Future IRP Phase:	Response Complete

Recommendation for future response: Contamination significant enough to warrant remediation was not detected during the investigation phase, and no further action is planned for this site under the IRP.

**Salvage Yard (CSWPY-014):**

CSWPY-014 was a temporary storage area for salvageable materials and drums of spent solvents and waste oil located northeast of the Main Laboratory building. No contamination was found during the RI.

(CSWPY-014 continued)

Contaminant of Concern:	Volatiles, metals, polychlorinated biphenyls (PCBs)
Media of Concern:	Groundwater, Soil
RRSE Rating:	Not required (RC)
Completed IRP Phase to Date:	PA/SI, RI
Current IRP Phase:	Response Complete
Future IRP Phase:	Response Complete

Recommendation for future response: No contamination was detected during the RI, and no further action is planned for this site under the IRP.

**Former Greenhouse Fuel Oil UST (CSWPY-015):**

CSWPY-015 is located adjacent to the western side of the Greenhouse building. This site is the former location of a 2,000 gallon used fuel oil UST, installed in 1973. The tank was removed in 1986 after leakage was observed. During the RI and the RFI, free product was noted in perched groundwater. The CMS recommended ground-water remediation.

Contaminant of Concern:	POL
Media of Concern:	Groundwater, soil
RRSE Rating:	1A (High with regulatory agreement)
Completed IRP Phase to Date:	PA/SI, RI, RFI, CMS
Current IRP Phase:	Proposed Plan/Record of Decision
Future IRP Phase:	CA for GWT GWT RA(O)/LTM

Recommendation for future response: Removal of the free product and remediation of the groundwater will be necessary at CSWPY-015. It is expected that ground-water treatment will include connection to the production well ground-water treatment facility.

**Former Pesticide Storage Area (CSWPY-016):**

CSWPY-016 is a former pesticide storage area located between production wells 1 and 2. Until 1974, the site was used for the storage and mixing of pesticides and herbicides. Documented spills occurred inside and outside the building. The RI and RFI indicated that a small area of soil near the building is contaminated. The contaminated soil was removed in 1994. The CMS found that no further action is necessary at this site.

Contaminant of Concern:	Pesticides
Media of Concern:	Soil
RRSE Rating:	1A (High with regulatory agreement)
Completed IRP Phase to Date:	PA/SI, RI, RFI, REM, CMS
Current IRP Phase:	Proposed Plan/Record of Decision
Future IRP Phase:	Response Complete

(CSWPY-016 (continued))

Recommendation for future response: Since the source of contamination was removed, the CMS recommended no further action.

**Pond Near Well 3 (CSWPY-017):**

CSWPY-017 is a pond used for containment of artificial sea water discharge from laboratory buildings. The pond is located in the southwestern corner of the installation. Based on the RI, small amounts of solvents may have been released with the sea water, however concentrations detected were below corrective action levels. The RFI confirmed the findings of the RI.

Contaminant of Concern:	TCE
Media of Concern:	Groundwater, Soil
RRSE Rating:	Not required (RC)
Completed IRP Phase to Date:	PA/SI, RI, RFI
Current IRP Phase:	Response Complete
Future IRP Phase:	Response Complete

Recommendation for future response: Contamination was not detected and no further action is planned for this site.

**Cooling Water Discharge (CSWPY-018):**

CSWPY-018 is the discharge point for water used in the main laboratory cooling system. Groundwater is pumped from the installation's production wells into the industrial cooling water system and is then discharged from the cooling system as storm water. The discharge point is located west of CSWPY-012 adjacent to the Connecticut River.

In 1992, when it was determined that the installation's production wells were contaminated with TCE, the discharge was also contaminated with TCE. It was found that sediment at the discharge point, the Connecticut River within 100 feet downstream and residential wells in the vicinity of the discharge point were all contaminated with TCE. Bottled water was provided to residents as an emergency remedial action and a ground-water treatment plant was installed for the production wells. Extraction wells were installed in the area of the discharge point and were connected to the production wells ground-water treatment facility. While the discharge point is active, remedial activities at this site are eligible for IRP funds because the contamination of the groundwater stems from past activities at sites on the installation. The RFI indicated that further corrective action may be necessary at this site to include possible soil removal.

Contaminant of Concern:	TCE
Media of Concern:	Groundwater, Surface water, Sediment
RRSE Rating:	1A (High with regulatory agreement)
Completed IRP Phase to Date:	PA/SI, RI, RFI
	RA (bottled water)
	RA (GWT Facility)

(CSWPY-002 continued)

	IRA (GW Treatment)
	CMS
Current IRP Phase:	RA(O)/LTM
Future IRP Phase:	CA for soil
	RA(O)/LTM

Recommendation for future response: Besides continued operation of the installation ground-water treatment facility for the production wells, the CMS recommended treatment and remediation of contaminated soil in the vicinity of the discharge point.

#### 4. IRP SUMMARY CHARTS

The following IRP Summary Charts (extracted from DSERTS) are included:

- Phase Summary Report
- Risk Installation Action Plan Report
- RAB Report

# PHASE SUMMARY REPORT

## Defense Site Environmental Restoration Tracking System

Phase Summary Report

01-05-1998

Programs: IRP

Installation count for Programs: 1

NPL Options: NO

Installations count for Programs and NPL: 1

Site count for Programs and NPL: 18

### Phase / Status / Sites

PA				SI			
C	U	F	RC	C	U	F	RC
18	0	0	0	18	0	0	0
RI / PS				RD			
C	U	F	RC	C	U	F	
18	0	0	11	3	2	2	
RA(C)				RA(O)			
C	U	F	RC	C	U	F	RC
2	0	5	0	0	2	4	0
LTM							
C	U	F	N				
0	3	4	11				

### Remedy / Status / Sites (Actions)

IRA							
C	U	F		C	U	F	
4	9	2	2	0	0	0	0
FRA							
C	U	F		C	U	F	
0	0	0	0	5	5		

RIP Total: 2

RC Total: 11



# RISK INSTALLATION ACTION PLAN REPORT

## DEFENSE SITE ENVIRONMENTAL RESTORATION TRACKING SYSTEM

RISK INSTALLATION ACTION PLAN REPORT

01-05-1998

CAMP SWAMPY  
NH213799999  
TDOC

Site	A106 Project #	RRSE	Media Evaluated	Phase(s) Completed	Phase(s) Underway	Phase(s) Future	#IRA Completed	#IRA Underway	#IRA Future	LTM Status	Est. RC Date	Act. RC Date	RIP Date
CSWPY-001	CSWP92S002 1A		GW (Human)	PA	RD	LTM	0	1	0	F	200702		
	CSWP92S005		SO (Human)	RI		RA(C)							
CSWPY-002	CSWP92S002 1A		GW (Human)	PA	RD	LTM	0	1	0	F	200702		
	CSWP92S008		SO (Human)	RI		RA(C)							
CSWPY-003		NE		SI		RA(O)							
				PA			0	0	0	N		199309	
CSWPY-004				RI									
		NE		SI			0	0	0	N		199309	
CSWPY-005	CSWP92S003 2A		GW (Human)	PA		LTM	0	0	0	F	200101		
	CSWP96S001		SO (Human)	RI		RA(C)							
CSWPY-006		NE		SI		RD							
				PA			0	0	0	N		199309	
CSWPY-007				RI									
		NE		SI			0	0	0	N		199309	
CSWPY-008	CSWP92S002 1A		GW (Human)	PA	LTM		2	0	0	U	200912		199708
			SO (Human)	RA(C)	RA(O)								
				RD									

RRSE - Relative Risk Site Evaluation; Risk Category - 1=High, 2=Medium, 3=Low;  
Legal Agreement - A = with agreement, B = without agreement; C = Complete, U = Underway, F = Future, N = Not Applicable

# RISK INSTALLATION ACTION PLAN REPORT

## DEFENSE SITE ENVIRONMENTAL RESTORATION TRACKING SYSTEM

RISK INSTALLATION ACTION PLAN REPORT													01-05-1998
CSMPY-008													
CSMPY-009	CSWP92S002	1A	GW (Human)	PA	LTM	2	0	0	0	U	200912		199705
			SO (Human)	RA(C)	RA(O)								
				RD									
				RI									
				SI									
CSMPY-010			NE	PA		0	0	0	0	N		199309	
				RI									
				SI									
CSMPY-011			NE	PA		0	0	0	0	N		199607	
				RI									
				SI									
CSMPY-012			NE	PA		0	0	0	0	N		199309	
				RI									
				SI									
CSMPY-013			NE	PA		0	0	0	0	N		199607	
				RI									
				SI									
CSMPY-014			NE	PA		0	0	0	0	N		199309	
				RI									
				SI									
CSMPY-015	CSWP92S002	1A	GW (Human)	PA	LTM	0	0	0	0	F	200912		
	CSWP92S006		SO (Human)	RI	RA(C)								
				SI	RA(O)								
					RD								
CSMPY-016			NE	PA		1	0	0	0	N		199709	
				RI									
				SI									
CSMPY-017			NE	PA		0	0	0	0	N		199607	
				RI									

RRSE - Relative Risk Site Evaluation; Risk Category - 1=High, 2=Medium, 3=Low;  
 Legal Agreement - A = with agreement, B = without agreement; C = Complete, U = Underway, F = Future, N = Not Applicable

# RISK INSTALLATION ACTION PLAN REPORT

## DEFENSE SITE ENVIRONMENTAL RESTORATION TRACKING SYSTEM

RISK INSTALLATION ACTION PLAN REPORT												01-05-1998
CSWPPY-017				SI								
CSWPPY-018	CSWP92S002	1A	GW (Human)	PA	LTM	RA(C)	4	0	0	U	200912	
	CSWP92S007		SO (Human)	RD		RA(O)						
				RI								
				SI								

RRSE - Relative Risk Site Evaluation; Risk Category - 1=High, 2=Medium, 3=Low;  
 Legal Agreement - A = with agreement, B = without agreement; C = Complete, U = Underway, F = Future, N = Not Applicable

## RAB REPORT

### DEFENSE SITE ENVIRONMENTAL RESTORATION TRACKING SYSTEM

RAB REPORT

01-05-1998

Command: TCOM

Subcommand

Installation: CAMP SWAMPY

RAB Established date:

Reason RAB not Established: NO COMMUNITY INTEREST

RAB Disestablished date:

Reason TAB disestablished:

TRC Date:

199212

RAB Members:

RAB Activities:

RAB Funding:

FY	Tech Assist	Expenditures

RAB Advice:

## 5. SCHEDULE

The following is the schedule of IRP work completed to date and planned through completion of all restoration work.

### A. PAST MILESTONES BY PHASE:

PA/SI Initiation	Sep 91
PA/SI Completion	Jun 92
IRA - Bottled Water	Jul 92
IRA - Waterline Extension	Sep 92
RD - Begin design GWT facility	Sep 92
RI Initiation (CSWPY-001 - 018)	Sep 92
RD - Complete design for GWT facility	Jun 93
RI Completion	Sep 93
IRA - Begin construction of GWT facility	Oct 94
RFI Initiation (11 Sites)	Jan 95
(CSWPY-001-002, 005, 008-009, 011, 013, 015 - 018)	
IRA - Waterline Extension	May 95
IRA - Complete construction GWT facility	Jul 95
IRA - Initiate GWT at CSWPY-018	Aug 95
IRA - Initiate GWT at CSWPY-008	Nov 95
IRA - Initiate GWT at CSWPY-009	Jan 96
RFI Completion	Jul 96
REM - Soil removal at CSWPY-016	Aug 96
CMS Initiation (8 sites)	Sep 96
(CSWPY-001-002, 005, 008-009, 015-016, & 018)	
IRA - Soil treatment at CSWPY-009	May 97
IRA - Soil treatment at CSWPY-008	Aug 97
CMS Completion	Sep 97

### B. PROJECTED MILESTONES BY PHASE:

IRA - GWT at CSWPY-001	Feb 98
IRA - GWT at CSWPY-002	Feb 98
Proposed Plan Completion	Mar 98
Record of Decision Completion	Sep 98
RD - Begin design for GWT at CSWPY-015	Oct 98
RD - Begin design for CSWPY-005	Oct 98
RD - Begin design for soils at CSWPY-018, -001, -002	Dec 98
RD - Complete design for GWT at CSWPY-015	May 99
RD - Complete design for soils at CSWPY-018, -001, -002	Jul 99
RA - Begin RA for GWT at CSWPY-015	Aug 99
RD - Complete design for CSWPY-005	Oct 99
RA - Begin RA for soils at CSWPY-018, -001, -002	Oct 99
RA - Begin RA for cap at CSWPY-005	Jan 00
RA - Complete RA for GWT at CSWPY-015	Feb 00
RA - Complete RA for soils at CSWPY-018, -001, -002	Sep 00

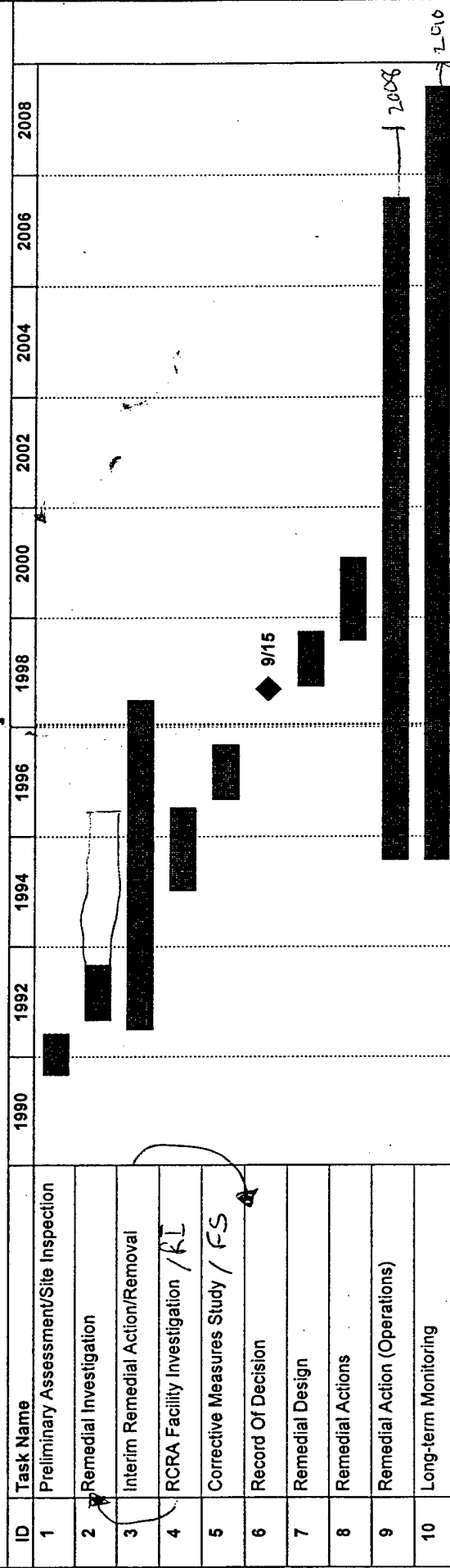
RA - Complete RA for cap at CSWPY-005	Feb 01
LTM- Begin LTM at CSWPY-005	Feb 01
RA(O) - Operation of GWT facility for CSWPY-018, 001, 002, 008, 009, 015	Feb 07
LTM - Monitoring of CSWPY-018, 001, 002, 009, 015 and 005	Dec 09

**Projected completion date of all RA:** Feb 07

**Projected deletion from the National Priorities List is not applicable to Camp Swampy.**

**Projected completion date of IRP:** Dec 09

# CAMP SWAMPY IRP SCHEDULE



Project: Date: 1/13/98	Task	Summary	Rolled Up Progress
	Progress	Rolled Up Task	
	Milestone	Rolled Up Milestone	

## **6. REMOVAL/INTERIM REMEDIAL/REMEDIAL ACTION ASSESSMENT**

An RI completed in 1993 investigated 18 sites, CSWPY-001 through CSWPY-018. No further remedial action was planned at seven sites: CSWPY-003, 004, 006, 007, 010, 012, 014. Eleven sites required additional investigation as a result of the RI and in response to the RCRA permitting process. An RFI was completed for the 11 sites in 1996 and no further action was required for CSWPY-011, 013 & 017. The CMS recommended no further action at CSWPY-016, but the other 7 sites required remedial action or continued ground-water treatment and monitoring.

CSWPY-018, -008 and -009 are undergoing ground-treatment, as are CSWPY-001 and CSWPY-002. CSWPY-008 and -009 have also undergone soil treatment. Sites CSWPY-001 and CSWPY-002 are potential sites for accelerated action for soil treatment.

### **Past REM/IRA/RA/RA(O)/LTM:**

- \* CSWPY-018, Cooling Water Discharge to Connecticut River, Interim remedial action to provide bottled water to affected residential users, Jul 92 (FY92), \$5.0K.
- \* CSWPY-018, Cooling Water Discharge to Connecticut River, Interim remedial action to extend waterline to affected residential users, Sep 92 (FY92), \$100.0K, May 95 (FY95) \$50.0K.
- \* Installation Groundwater Treatment Facility, Treatment of contaminated installation production wells and extraction wells at contaminated sources, installed Jul 94 (FY94), \$2,811.0K.
- \* CSWPY-018, Cooling Water Discharge to Connecticut River, Interim remedial action to treat groundwater, connection to existing GWT facility, Aug 95 (FY95), \$360.0K.
- \* CSWPY-008, Fuel Dispensing Area, Interim remedial action to remove free product from existing monitoring wells and connection to existing GWT facility, Nov 95 (FY96), \$258K.
- \* CSWPY-009, Research Ice Well, Interim remedial action to treat groundwater, connection to existing GWT facility, Jan 96 (FY96), \$430K.
- \* CSWPY-016, Former Pesticide Storage Area, Removal action of soil from a 250 square foot area, approximately 3 feet deep, Aug 96 (FY96), \$550K.
- \* CSWPY-008, Fuel Dispensing Area, Interim remedial action, soil treatment, bioremediation, May 97, (FY97) \$1,050.0K.
- \* CSWPY-009, Research Ice Well, Interim remedial action, soil treatment, bioremediation, Aug 97, (FY97) \$465.0K.



**Current REM/IRA/RA/RA(O)/LTM:**

- \* CSWPY-001, Above Ground Storage Tank Site, Remedial action, groundwater treatment, connection to existing GWT facility, Feb 98, (FY98), \$360.0K.
- \* CSWPY-002, Former TCE and Fuel Oil USTs, Remedial action, groundwater treatment, connection to existing GWT facility, estimated, Feb 98, (FY98), \$245.0K.

**Possible Future REM/IRA/RA/RA(O)/LTM Opportunities:**

- \* CSWPY-015, Former Greenhouse Fuel Oil UST: Localized groundwater remediation could also be required due to the free petroleum product in the perched water zone, FY99.
- \* CSWPY-005, Old Sanitary Landfill: Cap old landfill, install monitoring wells, FY99.
- \* CSWPY-018, Cooling Water Discharge to Connecticut River, Remedial Action, soil treatment could be required as a final remedial action at the point of discharge, FY99.

**Potential sites for accelerated action**

- \* CSWPY-001, Above Ground Storage Tank Site, Remedial action, soil treatment, FY99.
- \* CSWPY-002, Former TCE and Fuel Oil USTs, Remedial action, soil treatment, FY99.

**7. APPROVAL/CONCURRENCE**

**Regulator and Public Involvement**

The New Hampshire Department of Environmental Services and two community members of the TRC participated in the update of this IAP.

All members of the TRC, including the USEPA, will be furnished a copy of this IAP.

(INSTALLATION COMMANDER SIGNATURE)

BOB B. GOOD  
Colonel, CM  
Commanding

(MACOM CONCURRENCE)

BOB RESTORATION  
Chief, Environmental Office  
U.S. Army Troop Command

## ATTACHMENT 1. COST

Prior year IRP funds received by Camp Swampy and estimates of current and projected funding have been broken down by fiscal year and phase.

### PRIOR YEAR FUNDS:

FY92	PA/SI (FY91-92)	\$222K
	IRA - Bottled Water	5K
	IRA - Municipal Water Line Hook-Up	100K
	RI	490K
	RD for GWT facility	<u>288K</u>
		\$1,105K
FY93	RD for GWT facility	<u>\$51K</u>
		\$51K
FY94	IRA - GWT facility construction	\$2,250K
	RD/RA Corps S&A for GWT facility	<u>126K</u>
		\$2,376K
FY95	RD/RA Corps S&A for GWT facility	\$96K
	RA(O) for GWT facility	40K
	IRA - Municipal Water Line Hook-up	50K
	IRA - GWT at CSWPY-018	360K
	RCRA Facility Investigation	<u>1,400K</u>
		\$1,946K
FY96	RA(O) for GWT facility	\$60K
	Monitoring at CSWPY-018	100K
	IRA - GWT at CSWPY-008	258K
	IRA - GWT at CSWPY-009	430K
	REM at CSWPY-016	550K
	Corrective Measures Study	<u>1,560K</u>
		\$2,958K
FY97	RA(O) for GWT facility	\$120K
	Monitoring at CSWPY-018, -008, -009	100K
	IRA for Soil Treatment at CSWPY-008	1,050K
	IRA for Soil Treatment at CSWPY-009	<u>465K</u>
		\$1,735K
TOTAL PRIOR YEAR IRP FUNDS		\$10,171K

**CURRENT YEAR FUNDS (FY98):**

FY98	RA(O) at GWT facility	\$130K
	Monitoring at CSWPY-018, -008, -009	100K
	IRA for GWT at CSWPY-001	360K
	IRA for GWT at CSWPY-002	<u>245K</u>
		<b>\$835K</b>

<b>TOTAL CURRENT YEAR REQUIREMENTS</b>	<b>\$835K</b>
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**FUNDS REQUIRED TO COMPLETION:**

See Attached Constrained Cost to Complete Sheet

<b>TOTAL FUTURE REQUIREMENTS</b>	<b>\$9,840K</b>
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<b>Total Funding from Inception to Completion</b>	<b>\$20,846K</b>
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**Camp Swampy**  
**Constrained Cost to Complete**

MACOM	INSTALLATION	DSERTS	DESCRIPTION	PHASE	FY99	FY00	FY01	FY02	FY03	FY04+	TOTAL
TCOM	Camp Swampy	CSWPY-001	Above Ground Storage Tank	LTM	\$83	\$50	\$0	\$0	\$0	\$0	\$133
TCOM	Camp Swampy	CSWPY-001	Above Ground Storage Tank	LTO	\$0	\$0	\$0	\$0	\$0	\$0	\$0
TCOM	Camp Swampy	CSWPY-001	Above Ground Storage Tank	RA	\$0	\$355	\$0	\$0	\$0	\$0	\$355
TCOM	Camp Swampy	CSWPY-001	Above Ground Storage Tank	RD	\$75	\$0	\$0	\$0	\$0	\$0	\$75
TCOM	Camp Swampy	CSWPY-001	<b>Total</b>		\$158	\$405	\$0	\$0	\$0	\$0	\$563
TCOM	Camp Swampy	CSWPY-002	Former TCE and Fuel Oil USTs	LTM	\$83	\$50	\$0	\$0	\$0	\$0	\$133
TCOM	Camp Swampy	CSWPY-002	Former TCE and Fuel Oil USTs	LTO	\$0	\$0	\$0	\$0	\$0	\$0	\$0
TCOM	Camp Swampy	CSWPY-002	Former TCE and Fuel Oil USTs	RA	\$0	\$455	\$0	\$0	\$0	\$0	\$455
TCOM	Camp Swampy	CSWPY-002	Former TCE and Fuel Oil USTs	RD	\$95	\$0	\$0	\$0	\$0	\$0	\$95
TCOM	Camp Swampy	CSWPY-002	<b>Total</b>		\$178	\$505	\$0	\$0	\$0	\$0	\$683
TCOM	Camp Swampy	CSWPY-005	Old Sanitary Landfill	LTM	\$0	\$0	\$129	\$129	\$129	\$814	\$1,200
TCOM	Camp Swampy	CSWPY-005	Old Sanitary Landfill	LTO	\$0	\$0	\$0	\$0	\$0	\$0	\$0
TCOM	Camp Swampy	CSWPY-005	Old Sanitary Landfill	RA	\$0	\$2,000	\$0	\$0	\$0	\$0	\$2,000
TCOM	Camp Swampy	CSWPY-005	Old Sanitary Landfill	RD	\$200	\$0	\$0	\$0	\$0	\$0	\$200
TCOM	Camp Swampy	CSWPY-005	<b>Total</b>		\$200	\$2,000	\$129	\$129	\$129	\$814	\$3,400
TCOM	Camp Swampy	CSWPY-008	Fuel Dispensing Area	LTM	\$83	\$50	\$0	\$0	\$0	\$0	\$133
TCOM	Camp Swampy	CSWPY-008	Fuel Dispensing Area	LTO	\$0	\$0	\$0	\$0	\$0	\$0	\$0
TCOM	Camp Swampy	CSWPY-008	<b>Total</b>		\$83	\$50	\$0	\$0	\$0	\$0	\$133
TCOM	Camp Swampy	CSWPY-009	Research Ice Well	LTM	\$83	\$50	\$0	\$0	\$0	\$0	\$133
TCOM	Camp Swampy	CSWPY-009	Research Ice Well	LTO	\$0	\$0	\$0	\$0	\$0	\$0	\$0
TCOM	Camp Swampy	CSWPY-009	<b>Total</b>		\$83	\$50	\$0	\$0	\$0	\$0	\$133
TCOM	Camp Swampy	CSWPY-015	Former Greenhouse Fuel Oil UST	LTM	\$83	\$50	\$300	\$300	\$300	\$1,800	\$2,833
TCOM	Camp Swampy	CSWPY-015	Former Greenhouse Fuel Oil UST	LTO	\$120	\$130	\$130	\$130	\$130	\$520	\$1,160
TCOM	Camp Swampy	CSWPY-015	Former Greenhouse Fuel Oil UST	RA	\$250	\$0	\$0	\$0	\$0	\$0	\$250
TCOM	Camp Swampy	CSWPY-015	Former Greenhouse Fuel Oil UST	RD	\$50	\$0	\$0	\$0	\$0	\$0	\$50
TCOM	Camp Swampy	CSWPY-015	Former Greenhouse Fuel Oil UST	RI/FS	\$0	\$0	\$0	\$0	\$0	\$0	\$0
TCOM	Camp Swampy	CSWPY-015	<b>Total</b>		\$503	\$180	\$430	\$430	\$430	\$2,320	\$4,293
TCOM	Camp Swampy	CSWPY-018	Cooling Water Discharge	LTM	\$83	\$50	\$0	\$0	\$0	\$0	\$133
TCOM	Camp Swampy	CSWPY-018	Cooling Water Discharge	LTO	\$0	\$0	\$0	\$0	\$0	\$0	\$0
TCOM	Camp Swampy	CSWPY-018	Cooling Water Discharge	RA	\$0	\$400	\$0	\$0	\$0	\$0	\$400
TCOM	Camp Swampy	CSWPY-018	Cooling Water Discharge	RD	\$100	\$0	\$0	\$0	\$0	\$0	\$100
TCOM	Camp Swampy	CSWPY-018	Cooling Water Discharge	RI/FS	\$0	\$0	\$0	\$0	\$0	\$0	\$0
TCOM	Camp Swampy	CSWPY-018	<b>Total</b>		\$183	\$450	\$0	\$0	\$0	\$0	\$633
		<b>Grand Total</b>			<b>\$1,390</b>	<b>\$3,640</b>	<b>\$559</b>	<b>\$559</b>	<b>\$559</b>	<b>\$3,134</b>	<b>\$9,840</b>

**CAMP SWAMPY - FUNDING PROFILE**  
( \$ IN THOUSANDS )

TASK	FY92	FY93	FY94	FY95	FY96	FY97	FY98	FY99	FY00	FY01-09	TOTAL
PA/SI	222										222
RI/Fs	490			1,400							1,890
CMS					1,560						1,560
IRA/REM	105		2,376	506	1,238	1,515	605				6,345
RD	288	51						520			859
RA								250	3,210		3,460
RA (O)				40	60	120	130	120	130	910	1,510
LTM					100	100	100	500	300	3,900	5,000
TOTAL	1,105	51	2,376	1,946	2,958	1,735	835	1,390	3,640	4,810	20,846

## **ATTACHMENT 2. RESTORATION ADVISORY BOARDS**

In December 1996 (FY97), Camp Swampy canvassed its surrounding communities for potential interest in establishing a Restoration Advisory Board (RAB). After all efforts were completed, the Installation Commander determined that there was not enough sustainable community interest to establish a RAB.

The surrounding community for Camp Swampy includes the town of Kleene, New Hampshire (population 10,500); Trumpet College in New Hampshire; and the village of Washup, Vermont (population 3,100). Camp Swampy has a Technical Review Committee (TRC) with two community members and one representative from Trumpet College.

### **A. Efforts Taken To Determine Interest**

Camp Swampy conducted the following to determine potential interest in establishing a RAB:

- (1) Asked the three TRC community members what their thoughts were in converting the TRC to a RAB.
- (2) Mailed out fact sheets explaining what a RAB is and included Interest Surveys. Camp Swampy used the mailing list developed in the installation's Community Relations Plan.
- (3) Placed advertisements once a week for six weeks in the daily Kleene Gazette and the weekly Washup Herald explaining what a RAB is and included Interest Surveys.
- (4) Held two public meetings in December on RABs in Kleene, New Hampshire, with poster stations and displayed a RAB poster station in the Washup library for 6 weeks.

### **B. Results**

- (1) The TRC community members supported converting the TRC to a RAB if sustained community interest was indicated. However, the TRC members were concerned that they might not be selected to be RAB community members. If sufficient sustained community interest was not indicated, the TRC community members wanted to remain on the TRC.
- (2) One response was received from the direct mailing of the fact sheets and Interest Surveys. While the respondent expressed interest in attending a RAB meeting, no interest was expressed in being a participating member.
- (3) Four responses to the paid advertisements in the community newspapers were received.
- (4) Five people attended the first public meeting - 3 attendees were employees of environmental consulting firms and 2 attendees were members of the TRC. The second public meeting was attended by only the mayor of Kleene. No interest surveys from the public meetings or the Washup Library were returned.

### **C. Conclusions**

Based on the results of Camp Swampy's efforts to determine interest in forming a RAB, the installation commander determined that there was not enough interest to establish and sustain a RAB at this time.

### **D. Follow-up Procedures**

Camp Swampy is committed to involving the public in its restoration program and recognizes that interest in restoration activities can change. Camp Swampy will monitor community interest annually. In FY98, Camp Swampy will again canvas the community for interest in RABs, however, the next effort will be conducted in the summer months. It was felt that determining interest in November and December may not have provided optimal results due to weather conditions and holiday activities.

Community interest activities will again include distribution of interest surveys via mailing lists, newspaper advertisements, and public meetings.

1. COMMANDER,  
U.S. ARMY, PACIFIC,  
FORT SHAFTER  
BLDG. T-104  
ATTN: APEN-V (MR. KUBECKA)  
FORT SHAFTER, HI 96858-5100  
(808) 438-3080
2. COMMANDER,  
U.S. ARMY CORPS OF ENGINEERS,  
20 MASSACHUSETTS AVE. NW.,  
ATTN: CELD-ZE (MR. ROBINSON),  
WASHINGTON, DC 20314-1000  
(202) 761-0415
3. COMMANDER,  
U.S. ARMY FORCES COMMAND,  
FORT MCPHERSON  
BLDG. 200  
ATTN: AFPI-ENE (MR. GRICIUS),  
FORT MCPHERSON, GA 30330-6000  
(404) 464-5761
4. COMMANDER,  
U.S. ARMY MATERIEL COMMAND,  
5001 EISENHOWER AVENUE,  
ROOM 4W20,  
ATTN: AMCEN-A (MS. POMERLEAU),  
ALEXANDRIA, VA 22333-0001  
(703) 617-9016
5. COMMANDER,  
U.S. ARMY MEDICAL COMMAND,  
FORT SAM HOUSTON  
2050 WORTH ROAD, BLDG 2792, ROOM 336  
ATTN: MCFA-E (MR. GONZALEZ),  
FORT SAM HOUSTON, TX 78234-6000  
(210) 221-6441
6. COMMANDER,  
U.S. ARMY MILITARY DISTRICT OF WASHINGTON,  
FORT LESLEY J. MCNAIR,  
BLDG. 42  
ATTN: ANEN-ES (MR. DUNN),  
FORT LESLEY J. MCNAIR, WASH DC 20310-5050  
(202) 475-2793
7. COMMANDER,  
U.S. ARMY RESERVE COMMAND,  
FORT MCPHERSON  
1401 DESHLER ST., SW.,  
ATTN: AFRC-ENV-RC (MR. BARTON),



FORT MCPHERSON, GA 30330-2000  
(404) 464-8791

8. COMMANDER,  
U.S. ARMY TRAINING AND DOCTRINE COMMAND,  
FORT MONROE  
BLDG. 10,  
ATTN: ATBO-SE (MR. SLIWOSKI),  
FORT MONROE, VA 23651-5000  
(757) 727-3335
9. COMMANDER,  
MILITARY TRAFFIC MANAGEMENT COMMAND,  
5611 COLUMBIA PIKE,  
ATTN: MTPAL-FE, (MR. MERRILL),  
FALLS CHURCH, VA 22041-5050  
(202) 756-6391
10. DEPUTY COMMANDER,  
U.S. ARMY SPACE AND STRATEGIC DEFENSE COMMAND,  
106 WYNN DRIVE  
ATTN: CSSD-EN-V (MR. GUNTER),  
HUNTSVILLE, AL 35805-3801  
(205) 955-4394
11. SUPERINTENDENT,  
U.S. MILITARY ACADEMY,  
BLDG. 667A,  
ATTN: MAEN-EV (MR. SHANDLING),  
WEST POINT, NY 10996-1592  
(914) 938-4459